

WHAT IS CLAIMED IS:

1. A method of making a fiber blank from at least one porous fiber structure, the method comprising the steps of:

5 consolidating the porous fiber structure by forming within it a deposit of a refractory material by partially densifying the fiber structure so as to bond together the fibers of the fiber structure to enable the fiber structure to be handled without being deformed, while leaving empty the major fraction of the initial pore volume of the fiber structure; and

10 implanting rigid pins through the consolidating porous structure.

15 2. A method of making a fiber blank by bonding together porous fiber structures in order to obtain a blank of desired shape, the method comprising the following steps:

20 consolidating each porous fiber structure by forming within it a deposit of a refractory material by partially densifying the fiber structure so as to bond together the fibers of the fiber structure to enable the fiber structure to be handled without being deformed, while leaving empty the major fraction of the initial pore volume of the fiber structure;

25 putting the consolidated fiber structures together; and connecting them together by implanting pins of rigid material through the adjoining consolidated fiber structures.

3. A method according to claim 1, wherein the or each fiber structure is consolidated by reducing its pore volume by no more than 40% of its initial value.

4. A method according to claim 1, wherein the or each fiber structure is consolidated by reducing its pore volume by an amount lying in the range 8% to 40% of its initial value.

5. A method according to claim 1, wherein the or each fiber structure used has a pore volume ratio lying in the range 50% to 70%, and consolidation is performed so as to reduce the pore volume ratio down to a value lying in the range 40% to 60%.
6. A method according to claim 1, wherein the or each fiber structure is consolidated by forming a deposit of ceramic or of carbon.
7. A method according to claim 6, wherein the or each fiber structure is consolidated by chemical vapor infiltration.
8. A method according to claim 7, wherein the or each fiber structure is consolidated by forming a ceramic deposit by chemical vapor infiltration after forming an interphase layer on the fibers of the fiber structure, said interphase layer lying between the fibers and the ceramic deposit.
9. A method according to claim 6, wherein the or each fiber structure is consolidated by being impregnated with a liquid composition containing a ceramic or carbon precursor, and by transforming the precursor into ceramic or carbon.
10. A method according to claim 9, wherein a composition is used containing a ceramic or carbon precursor in solution.
11. A method according to claim 1, wherein pins are used that have been made by densifying and stiffening a yarn or tow by means of a matrix.
12. A method according to claim 1, wherein pins are used that are made in the form of rigid monofilaments.
13. A method according to claim 1, wherein pins are used in the form of sticks of thermostructural composite material.

14. A method according to claim 1, wherein the pins are implanted in at least two different directions.

5 15. A method of making a fiber-reinforced composite material part, wherein a blank is made of shape corresponding to the shape of the part that is to be made by means of a method according to claim 1, after which the blank is densified by depositing a matrix within the remaining pore volume of the or
10 each consolidated fiber structure.